



# Mental Computation

## Year 10A Mathematics

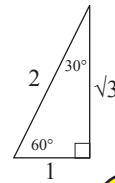
End Term 4

### Mental computation (End Term 4)

- 1 Spell Trigonometry
- 2 What is the sine rule?
- 3 What is the cos rule?
- 4 What is the area of any triangle?
- 5 Name two properties of an isosceles triangle
- 6 What is the gradient of the line  $y = 2x + 1$ ?
- 7 What is the gradient of the line perpendicular to  $y = 3x + 1$ ?
- 8 In the triangle, what is  $\cos 60^\circ$ ?
- 9 Factorise:  $x^2 - 5x + 6$
- 10 Two sides of a right-angled triangle are 1 and 1, what is the hypotenuse?

If two lines are perpendicular then the product of their gradients is  $-1$ .

$$m_1 \times m_2 = -1$$

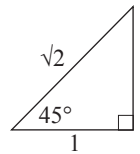


Sample 1

$$x^2 - 5x + 6 = (x - 3)(x - 2)$$

### Mental computation (End Term 4)

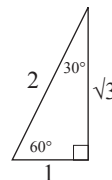
- 1 Spell Pythagoras
- 2 What is the sine rule?
- 3 What is the cos rule?
- 4 What is the area of any triangle?
- 5 Name two properties of an equilateral triangle
- 6 What is the gradient of the line  $y = 3x + 1$ ?
- 7 What is the gradient of the line perpendicular to  $y = 2x - 3$ ?
- 8 In the triangle, what is  $\cos 45^\circ$ ?
- 9 Factorise:  $x^2 - 4x + 3$
- 10 Two sides of a right-angled triangle are 1 and 2, what is the hypotenuse?



Sample 2

### Mental computation (End Term 4)

- 1 Spell Hypotenuse
- 2 What is the sine rule?
- 3 What is the cos rule?
- 4 What is the area of any triangle?
- 5 Name two properties of a parallelogram
- 6 What is the gradient of the line  $y = -5x + 4$ ?
- 7 What is the gradient of the line perpendicular to  $y = -5x + 2$ ?
- 8 In the triangle, what is  $\sin 60^\circ$ ?
- 9 Factorise:  $x^2 - 7x + 6$
- 10 Two sides of a right-angled triangle are 1 and 3, what is the hypotenuse?



Sample 3